

Index

A

- Activity When Killed or Injured
 - firefighter deaths, 147 , 148
 - firefighter injuries, 162 , 163
- Adjusted Percentages, 21
- Age, 8 , 42 , 44
 - firefighter deaths, 151 , 152
 - firefighter injuries, 159 , 160
 - gender, 45
 - per capita, 42
 - by gender, 41
 - relative risk, 43
- Alaska, 10 , 18 , 34 , 39
- All Properties, trend percentages, 3
- Apartments, 4 , 87
 - automatic extinguishing systems, 93
 - cause trend percentages, 93
 - cause trends, 91 , 92 , 179
 - causes, 88 , 90
 - month of year, 94 , 95
 - origin of fire, 96
 - presence of AESs, 94
 - smoke alarms, 91 , 93
 - time of day, 94 , 95
 - trends, 88 , 89
 - when fires occur, 94
- Appliances, 25
- Arkansas, 10 , 34
- Arson, 4 , 6
 - See also* Incendiary/Suspicious
- Automatic Extinguishing Systems, 6
 - apartments, 93 , 94
 - non-residential structures, 125
 - dollar loss per fire, 125
 - one- and two-family dwellings, 83
 - residential properties, 7 , 72
- Automobiles, 6
 - See also* Mobile Properties, Vehicles
 - ignition factors, 133

B

- Basic Industry Structures, 121

C

- California, 34 , 39
- Casualties
 - See also* Fire Deaths, Fire Injuries
 - firefighters, 143
- Cause Comparison (3 years)
 - hotels/motels, 102
 - non-residential structures, 124
- Cause Trends
 - apartments, 92 , 179
 - percentages, 93
 - non-residential structures, 117 , 180
 - percentages, 118
 - one- and two-family dwellings, 80 , 178
 - percentages, 81
 - residential properties, 65 , 177
 - percentages, 69
- Causes, 24
 - apartments, 88 , 90 , 92 , 179
 - trend percentages, 93
 - trends, 91
 - basic industry structures, 121
 - categories defined, 25
 - detached residential garages, 122
 - eating/drinking establishments, 119
 - educational structures, 119
 - firefighter deaths, 149 , 150
 - firefighter injuries, 161 , 162
 - hotels/motels, 99 , 101
 - institutional structures, 120
 - manufacturing structures, 121
 - mobile homes used as fixed residences, 87
 - mobile properties, 130
 - national, 51 , 53
 - by gender, 54
 - non-residential structures, 113 , 115 , 116
 - trend percentages, 118
 - trends, 117 , 180
 - one- and two-family dwellings, 75 , 78 , 80 , 178
 - trend percentages, 81
 - trends, 79
 - other residential properties, 97 , 100
 - outside properties, by property type, 138
 - outside structures and unknowns, 123
 - public assembly structures, 118
 - residential properties, 62 , 63 , 65 , 177
 - trend percentages, 69
 - trends, 64
 - storage structures, 122
 - stores and offices, 120
 - vacant and under construction properties, 123

Children Playing, 4 , 25

Conclusions, 10

Cooking, 3 , 4 , 25

Cost of Fire, 33

D

Day of Week

- non-residential structures, 113
- outside and other properties, 137
- residential properties, 74

Death Rate. *See* Per Capita, Per Fire

Deaths

- See also* Fire Casualties, Fire Deaths
- firefighters, 143
- U.S. vs. Europe, 13

Delaware, 10 , 34 , 39

District of Columbia, 34

Dollar Loss

- NFPA vs. USFA, outside properties, 134
- per fire
 - in non-residential structures, 113
 - in residential structures as a function of AESs, 125
- reporting errors, 70

Duty When Injured, firefighter deaths, 147

E

Eating/Drinking Establishments, 119

Educational Structures, 119

Electrical Distribution, 25

Emergency Duty, firefighter deaths, 149

Ethnic Groups, 8 , 44

See also Race

Exposure, 25

F

Fire Casualties

- age, 44
- age and gender, 45
- defined, 20
- national, causes by gender, 54
- per capita by age, 42
- per capita by age and gender, 41
- relative risk by age, 43
- trends by gender, 40

Fire Casualties and Dollar Loss

- mobile homes used as fixed residences, per fire trends, 86
- national, per fire by property type, 50
- national trend percentages per fire, by property type, 3
- NFIRS vs. NFPA losses per fire, 170
- per fire
 - by highway vehicle type, 129
 - by national property type, 3

Fire Deaths

- per capita, by race and gender, 46
- per capita by state, 40
- state ranking, 38
- vs. other nations, 33

Fire Losses, defined, 20

Firefighter Casualties, 9 , 143

USFA resources, 164

Firefighter Deaths, 143

- activity when injured, 147 , 148
- age, 151 , 152
- career personnel, 145
- cause and nature of injury, 149
- cause of injury, 149 , 150
- emergency duty, 149
- gender, 145
- health, 152
- heart attacks, 151 , 152
- month of year, 152 , 153
- nature of injury, 150
- region, 145
- state, 146
- time of day, 152
- trends, 144
 - per fire, 144
- type of duty when injured, 147
- type of service and duty, 145
- volunteers, 145
- World Trade Center, 143 , 150

Firefighter Injuries, 154

- activity when injured, 162 , 163
- age, 9 , 159 , 160
- causes, 161 , 162
- month of year, 160 , 161
- nature of injury, 163
- part of body injured, 161
- per fire, 156
 - by structure type, 158
 - in vacant and under construction structures, 159
 - trends by property type, 157
 - trends by structure type, 158 , 182
- property types, 154 , 155
- time of day, 160
- trends, 154
 - by property type, 155
- type of structure, 156 , 181
- when fires occur, 160
- where injuries occur, 161 , 162
- where treated, 164

Firefighter Training, 9

Fires

- non-residential structures, presence of AESs, 125
- outside and other properties
 - day of week, 137
 - month of year, 137
 - time of day, 136
- outside property types, 138
- residential properties
 - presence of AESs, 72
 - smoke alarm operation, 71

Fires and Dollar Loss

- basic industry structures, 121
- detached residential garages, 122
- eating and drinking establishments, 119
- educational structures, 119
- institutional structures, 120
- manufacturing structures, 121
- NFPA trends, by property type, 173
- non-residential structures, 3-year cause comparison, 124
- outside structures and unknowns, 123
- public assembly structures, 118
- storage structures, 122
- stores and offices, 120
- vacant and construction structures, 123

Fires and Fire Casualties

- apartments
 - cause trend percentages, 93
 - cause trends, 92 , 179
 - causes, 90
 - origin of fire, 96
- mobile properties
 - automobile ignition factors, 133
 - ignition factor trend percentages, 131
 - ignition factor trends, 132 , 181
 - ignition factors, 130
- one- and two-family dwellings
 - cause trend percentages, 81
 - cause trends, 80 , 178
 - causes, 78
 - origin of fire, 82
- other residential properties, causes, 100

Fires and Fire Deaths

- apartments
 - month of year, 95
 - presence of AESs, 94
 - smoke alarms, 93
- mobile homes used as fixed residences
 - causes, 87
 - smoke alarms, 87
- non-residential structures, month of year, 114
- one- and two-family dwellings
 - month of year, 77
 - presence of AESs, 83
 - smoke alarms, 82

residential properties, 70

- day of week, 74
- month of year, 74
- smoke alarms, 7

Fires and Fire Injuries, hotels/motels, causes, 101

Fires and Fire Losses

- all properties, trend percentages, 3
- apartments
 - time of day, 95
 - trends, 89
- hotels/motels, 3-year cause comparison, 102
- mobile homes used as fixed residences, trends, 85
- mobile properties, 127
 - highways vs. other, 128
- vehicle type, 129
- national, causes, 53
- national trends, 30
 - per capita, 32
- non-residential structures, 5 , 111
 - by property type, 112
 - cause trend percentages, 118
 - cause trends, 117 , 180
 - causes, 116
 - time of day, 114
- one- and two-family dwellings
 - time of day, 77
 - trends, 76
- other residential properties
 - by property type, 99
 - trends, 98
- outside and other property types, 135 , 136
- per capita, 2
- per fire
 - trend percentages by national property type, 51
 - trends by national property type, 52 , 176
- property type, 47
 - NFIRS vs. NFPA, 171
- proportions
 - trend percentages by national property type, 50
 - trends by national property type, 49 , 176
- ratio of NFIRS to NFPA estimates, 169
- residential properties, 60
 - by property type, 61
 - cause trend percentages, 69
 - cause trends, 65 , 177
 - causes, 63
 - leading causes, 64
 - time of day, 73

Florida, 39

G

Garages, Detached Residential, 122

Gender, 8

- age, 45
- deaths per capita, by race, 46
- national, 39
 - cause, 54

per capita, by age, 41
trends, 40

H

Hawaii, 34
Health, firefighters, 9 , 152
Heart Attacks, firefighter deaths, 9 , 151 , 152
Heating, 3 , 25
Hotels/Motels, 99
 3-year cause comparison, 102
 causes, 99 , 101
 trends, 101

I

Ignition Factor Trend Percentages, mobile properties, 131
Ignition Factors, mobile properties, 130
 automobile ignition factors, 133
 trends, 132 , 181
 trend percentages, 131
Incendiary/Suspicious, 25
 See also Arson
Injuries
 See also Fire Casualties, Fire Injuries
 firefighters, 154
Institutional Structures, 120

M

Manufactured Housing, 83
 See also One- and Two-Family Dwellings, Mobile Homes
 Used as Fixed Residences
Manufacturing Structures, 121
Massachusetts, 39
Medical Care, firefighter injuries, 164
Methodology of Data Presentation, 20
Minnesota, 39
Mississippi, 10 , 34
Mobile Homes Used as Fixed Residences, 4 , 83
 See also One- and Two-Family Dwellings
Mobile Properties, 126
 automobile ignition factors, 133
 causes, 130
 highway vs. other losses, trends, 128
 ignition factor trend percentages, 131

ignition factor trends, 132 , 181
ignition factors, 130
overview of trends, 126
special data problems, 131
trends, 127
vehicle types, 126 , 129

Month of Year

apartments, 94 , 95
firefighter deaths, 152 , 153
firefighter injuries, 160 , 161
non-residential structures, 113 , 114
one- and two-family dwellings, 75 , 77
outside and other properties, 137
residential properties, 73 , 74

Mortality Statistics, 39

N

National Estimates, 20
National Fire Incident Reporting System, 14
 22-year participation, 16
 fire department participation, 17
 percent of reports filed by version, 23
 state participation, 15
 uses, 19
 Version 5.0, 18
 changes from Version 4.1, 22
 vs. NFPA estimates, 14 , 26 , 169
National Fire Problem, 29
 causes, 51 , 53
 by gender, 54
 gender, 39
 per capita trends, 32
 property types, 46 , 47
 per fire losses, 50
 trends, 30
 trends by property type, 48
 trends in proportion of losses
 by property type, 49 , 176
 percentages by property type, 50
 trends per fire
 by property type, 52 , 176
 percentages by property type, 51
 USFA resources, 54
 vs. other nations, 2 , 33
National Fire Protection Association
 non-residential structures, trends by property type, 173
 vs. NFIRS estimates, 14 , 26 , 169
 vs. USFA estimates, 134
Natural, 25
Nature of Injury
 firefighter deaths, 149 , 150
 firefighter injuries, 163
Nevada, 18 , 34
New Jersey, 39

New York, 39 , 145

NFIRS. *See* National Fire Incident Reporting System

NFPA. *See* National Fire Protection Association

Non-Residential Properties, 5 , 109

mobile properties, 126

fires and fire losses, 127

non-residential structures, 109

fires and fire losses, 111

outside and other properties, 133

fires and fire losses, 135

USFA resources, 139

Non-Residential Structures

3-year cause comparison, 124

automatic extinguishing systems, 125

cause trend percentages, 118

cause trends, 117 , 180

causes, 113 , 115 , 116

basic industry structures, 121

detached residential garages, 122

eating/drinking establishments, 119

educational structures, 119

institutional structures, 120

manufacturing structures, 121

outside structures and unknowns, 123

public assembly structures, 118

storage structures, 122

stores and offices, 120

vacant and under construction properties, 123

day of week, 113

dollar loss per fire

as a function of AESs, 125

by structure type, 113

fires and fire losses, 111

losses by property type, 5

mobile properties, trends, 127

month of year, 113 , 114

NFPA trends, by property type, 173

presence of AESs, 125

property types, 112 , 115

time of day, 112 , 114

trends, 111

vacant and under construction properties, 124

when fires occur, 112

O

Offices. *See* Stores and Offices

Oklahoma City Federal Building Bombing, 110

On-Duty Firefighter Activities, 154

One- and Two-Family Dwellings, 3 , 74

automatic sprinkler systems, 83

cause trend percentages, 81

cause trends, 79 , 80 , 178

causes, 75 , 78

mobile homes used as fixed residences, 83

causes, 87

per fire trends, 86

smoke alarms, 87

trends, 85

month of year, 75 , 77

origin of fire, 81 , 82

overview of trends, 75

presence of AESs, 83

smoke alarms, 81 , 82

time of day, 75 , 77

trends, 76

when fires occur, 75

Open Flame, 25

Origin of Fire

apartments, 96

one- and two-family dwellings, 81 , 82

Other Equipment, 25

Other Heat, 25

Other Residential Properties, 4 , 97

causes, 97 , 100

hotels/motels, 99

property types, 97 , 99

trends, 97 , 98

Outside and Other Properties, 6 , 133

day of week, 137

month of year, 137

overview of trends, 134

time of day, 136

trends, 135

when fires occur, 136

Outside Fires, 6

causes, by property type, 138

Outside Properties

causes, 137

NFPA vs. USFA dollar loss, 134

property types, 136

special data problems, 139

Outside Structures and Unknowns, 123

P

Part of Body Injured, firefighters, 161

Pennsylvania, 145

Per Capita

10-year death rate by state, 35

age, 42

age and gender, 41

- defined, 31
- losses, 2
- national trends, 32
- race and gender, 46
- state ranking of deaths, 37

Per Fire

- firefighter deaths, 144
- firefighter injuries, 156
 - trends by property type, 157
 - by structure type, 158
- in vacant or under construction structures, 159
 - trends by structure type, 158 , 182
- highway vehicles, 129
- mobile homes used as fixed residences, trends, 86
- national property type, 3 , 50
- NFIRS vs. NFPA, trends, 170
- non-residential structures
 - dollar loss, 113
 - dollar loss as a function of AESs, 125
- trend percentages by national property type, 3 , 51
- trends by national property type, 52 , 176

Post-Collision Vehicle Fires, 130

Property Types, 46 , 47

- firefighter injuries, 154 , 155
 - per fire, 159
 - trends, 155
- national
 - losses per fire, 3 , 50
 - trend percentages in proportions of losses, 50
 - trend percentages per fire, 51
 - trends in proportions of losses, 49 , 176
 - trends per fire, 52 , 176
- national trends per fire, percentages, 3
- NFIRS vs. NFPA, 171
- non-residential structures, 5 , 112 , 115
 - dollar loss per fire, 113
 - NFPA trends, 173
- other residential properties, 97 , 99
- outside, causes, 138
- outside and other properties, 136
- outside properties, 136
- residential properties, 61

Proportion of Losses

- trend percentages by national property type, 50
- trends by national property type, 49 , 176

Public Assembly Structures, 118

Purpose of Report, 1

R

Race

- See also Ethnic Groups
- deaths per capita, by gender, 46

Regional Profiles, 10 , 34

Relative Risk, age, 43

Representativeness of Sample, 21

Residential Garages, detached, 109

Residential Properties, 3 , 59

- apartments, 87
 - fires and fire losses, 89
- automatic extinguishing systems, 72
- cause trend percentages, 69
- cause trends, 64 , 65 , 177
- causes, 62 , 63
- day of week, 74
- fires and fire losses, 60
- leading causes, 64
- month of year, 73 , 74
- one- and two-family dwellings, 74
 - fires and fire losses, 76
- other residential properties, 97
 - fires and fire losses, 98
- presence of AESs, 72
- property types, 61
- smoke alarms, 7 , 70
 - operation, 71
- sprinklers, 7
- time of day, 72 , 73
- trends, 59 , 60
- USFA resources, 102
- when fires occur, 72

Resources. See USFA Resources

Rhode Island, 34

Rounding, 25

S

Scope of Report, 1

September 11, 2001 Attack, 1 , 5 , 29

- civilian and firefighter deaths, 20
- firefighter deaths, 143
- non-residential structures, 109

Smoke Alarms, 6

- apartments, 91 , 93
- manufactured housing, 84
- mobile homes used as fixed residences, 87
- NFIRS data, 70
- one- and two-family dwellings, 81 , 82
- residential properties, 7 , 70
 - operation, 71

Smoking, 3 , 4 , 25

Sources of Data, 14

Southeast U.S., 39

Special Data Problems

- mobile properties, 131
- outside properties, 139

Sprinklers. *See* Automatic Extinguishing Systems

State Profiles, 10 , 34

States

See also individual state

fire department participation in NFIRS, 17

firefighter deaths, 146

NFIRS participation, 15

per capita deaths, 35 , 40

per capita ranking of deaths, 37

ranking by number of deaths, 38

Statistical Confidence, 39

Storage Structures, 122

Stores and Offices, 120

Structures

firefighter injuries, 156 , 181

firefighter injuries per fire, 158

trends, 158 , 182

T

Time of Day

apartments, 94 , 95

firefighter deaths, 152

firefighter injuries, 160

non-residential structures, 112 , 114

one- and two-family dwellings, 75 , 77

outside and other properties, 136

residential properties, 72 , 73

Trends, 23

all properties, percentages, 3

apartments, 88 , 89

causes, 91 , 92 , 93

firefighter deaths, 144

firefighter deaths per fire, 144

firefighter injuries, 154

by property type, 155

type of structure, 156

firefighter injuries per fire

by property type, 157

by structure type, 158

gender, 40

hotels/motels, 101

mobile homes used as fixed residences, 85

per fire, 86

mobile properties, 127

highway vs. other losses, 128

ignition factors, 131 , 132

national, 30

non-residential structures, 111

causes, 117 , 118

NFPA, by property type, 173

one- and two-family dwellings, 75 , 76

causes, 79 , 80 , 81

other residential properties, 97 , 98

outside and other properties, 135

per fire

by national property type, 52

percentages by national property type, 51

per fire losses, NFIRS vs. NFPA, 170

property types, 48

proportions of losses

by national property type, 49

percentages by national property type, 50

ratio of NFIRS to NFPA estimates, 169

residential properties, 59 , 60

causes, 64 , 65 , 69

U

U.S. Fire Administration, vs. NFPA estimates, 134

Under Construction Properties. *See* Vacant and Under Construction Properties

Unknowns in the Data, 21

Unreported Fires, 26

Uses of Fire Data, 13

USFA Resources

firefighter casualties, 164

national fire problem, 54

non-residential properties, 139

residential properties, 102

Utah, 34

V

Vacant and Under Construction Properties, 109 , 110 , 123 , 124

firefighter injuries, 156

Vehicle Types, 126 , 129

Vehicles, 6

See also Automobiles, Mobile Properties

Vehicles, Highway, per fire, 129

W

When Fires Occur. *See* Time of Day, Day of Week, Month of Year

Where Injuries Occur, firefighters, 161 , 162

Wildland Fires, 31

Wisconsin, 39

World Trade Center. *See* September 11, 2001 Attack

World Trade Center Bombing, 110